

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated January 29, 2009 (hereinafter Office Action) have been considered. Claims 1-23, 35-48, 50-60, 62 and 63 remain pending in the application. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

Applicants wish to thank Examiner Rex Holmes and Supervisory Examiner George Evanisko for the courtesy of a telephonic interview which took place on March 2, 2009, and in which the undersigned attorney Stephen Jensen participated on behalf of Applicants. In connection with the interview, the undersigned provided the above claim amendments to the Examiner to more precisely define the invention as currently claimed, and to distinguish the claims over the asserted Bornzin reference, i.e., U.S. Patent 6,456,881 (Bornzin et al.). Discussion centered around the amendments to claim 1, where the undersigned proposed to add “by distinguishing between each of the captured, non-captured, and fusion/pseudofusion responses”, to cancel “only” in favor of the negative limitation “without using any other cardiac signal sensed following the pacing pulse”, and to replace “beat” with “response” for better grammatical parallelism. The undersigned pointed out that the “by distinguishing ...” language in combination with the “without using ...” language clearly distinguishes claim 1 from Bornzin, citing the flow chart of FIG. 3 of Bornzin, in which a post-pace ventricular EGM signal is used to confirm capture (boxes 315, 320, 325) but a different post-pace cardiac signal (a post-pace *atrial* EGM signal) is used to confirm fusion (box 335) and loss of capture (box 332). The undersigned contrasted that with the flow chart of FIG. 12 of the present application, in which the same post-pace cardiac signal is used to classify the cardiac response among the capture (box 1255), non-capture (box 1235), or fusion/pseudofusion (box 1245) responses. Examiner Evanisko indicated that the Bornzin reference would be reviewed again to confirm that claim 1 as amended distinguishes over Bornzin. Examiner Evanisko also indicated that the proposed negative limitation (“without using any other cardiac signal sensed following the pacing pulse”) would be reviewed with a quality group at the USPTO. The undersigned pointed out that compliance with the written description requirement of 35 U.S.C. § 112, first

paragraph, does not require verbatim support for the amendment, and directed the Examiner's attention to FIG. 12 of the present application and its associated description as clearly teaching to the person of ordinary skill in the art the negative limitation. The undersigned noted that the negative limitation, or language similar to it, is being incorporated into the other pending independent claims 35, 39, 52, 57, 59, and 62.

The Office Action rejected claims 1-43 and 45-63 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement on the basis that the specification and drawings teach that the classification is done using not only the single cardiac signal, but other elements as well such as a classification window, artifact template, etc. In response, Applicants are amending the independent claims to replace "only" language with the negative limitation referred to above, i.e., "without using any other cardiac signal sensed following the pacing pulse", or language similar to it. This language is submitted to have clear support in the specification e.g. in connection with FIG. 12. Withdrawal of the rejection is respectfully requested.

The Office Action rejected claims 1, 3, 4, 6, 8, 9, 11, 12, 15, 17-23, 35-39, 41, 42, 45-47, 52, 55-57, 59, and 62 under 35 U.S.C. §102(b) as being anticipated by Bornzin. In response, Applicants respectfully submit that the amendments to independent claims 1, 15, 35, 39, 52, 57, 59, and 62 distinguish the claims over Bornzin. For example, Bornzin does not teach classifying a cardiac response to a pacing pulse as one of a captured response, a non-captured response, and a fusion/pseudofusion response by distinguishing between each of the captured, non-captured, and fusion/pseudofusion responses using a single cardiac signal without using any other cardiac signal sensed following the pacing pulse (as set forth in claim 1), nor does it teach detecting a fusion/pseudofusion beat using a single cardiac signal without using any other cardiac signal sensed following the pacing pulse (as set forth in claim 35). Withdrawal of the rejections is respectfully requested.

The Office Action also rejected claim 61 under 35 U.S.C. §102(c) as being anticipated by U.S. Patent 6,973,350 (Levine et al.). In response, Applicants note that claim 61 was canceled in a previous response. The rejection is moot and should be withdrawn.

The Office Action also rejected claims 2, 16, 40, 53, 58, and 60 under 35 U.S.C. §103(a) as being unpatentable over Bornzin in view of U.S. Patent 5,522,860 (Molin et al.), hereinafter “Molin”. The Office Action further rejected claims 5, 7, 31, and 33 under 35 U.S.C. §103(a) as being unpatentable over Bornzin in view of U.S. Patent 6,738,669 (Sloman et al.). The Office Action rejected claims 10, 43, 44, 54, and 63 under 35 U.S.C. §103(a) as being unpatentable over Bornzin. The Office Action rejected claims 13, 14, and 48 under 35 U.S.C. §103(a) as being unpatentable over Bornzin in view of Sloman. Claims 50 and 51 were rejected under U.S.C. §103(a) as being unpatentable over Bornzin in view of U.S. Patent 4,878,497 (Callaghan et al.). In response, Applicants respectfully submit that these rejections cannot be sustained at least in view of the amendments to the independent claims made above and the deficiencies of Bornzin cited above. Withdrawal of the rejections is respectfully requested.

To the extent Applicants have not responded to any characterization by the Examiner of the asserted art or of Applicants’ claimed subject matter, or to any application by the Examiner of the asserted art to any claimed subject matter, Applicants wish to make clear for the record that any such lack of response should not be interpreted as an acquiescence to such characterizations or applications. A detailed discussion of each of the Examiner’s characterizations, or any other assertions or statements beyond that provided above is unnecessary. Applicants reserve the right to address in detail any such assertions or statements in future prosecution.

Authorization is given to charge Deposit Account No. 50-3581 (GUID.160PA) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the Examiner is invited to contact the undersigned attorney to discuss any issues related to this case.

Respectfully submitted,

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Date: March 12, 2009

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